

MB



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-----------------------|---------------------|------------------|
| 09/821,387      | 03/28/2001  | Steve Wai Leung Yeung | 25821P031           | 3593             |

8791 7590 12/20/2002

BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD, SEVENTH FLOOR  
LOS ANGELES, CA 90025

EXAMINER

BELL, PAUL A

ART UNIT PAPER NUMBER

2675

DATE MAILED: 12/20/2002

||

Please find below and/or attached an Office communication concerning this application or proceeding.



## Office Action Summary

Application No.

09/821,387

Applicant(s)

YEUNG, STEVE WAI LEUNG

Examiner

PAUL A BELL

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2675

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen (5,648,793).

With regard to claim 1 Chen teaches a method for driving an LCD (column 1, lines 5-8), comprising the steps of: (i) providing an LCD with a number of columns, (ii) providing an LCD with a number of rows, (iii) whereby to provide a number of pixels, and (iv) driving the LCD by multiple inversion of one of a column, row and pixel, whereby to provide a reduced total fringe field effect to maintain contrast and a minimized flickering on a display (abstract, column 2, line 59 - column 3, line 7, figure 5).

With regard to claim 2 Chen teaches a method as defined in Claim 1, wherein the multiple inversions are adjustable (figures 4a, 4b and 4c).

With regard to claim 3 Chen teaches a method as defined in Claim 1, wherein there is a number of columns (m) which is any integer from two to the number of scan lines and wherein

Art Unit: 2675

there is a number of rows (n) which is any integer from two to the number of column lines (inherent feature because a matrix is two or more).

With regard to claim 4 Chen teaches a method as defined in Claim 3, wherein there is an (n)-row inversion applied to a passively and an actively driven LCD, and wherein (n) is any integer from two to the number of scan lines (figures 1a show active case and since the lcd functions regardless of the driving method so passive is inherent).

With regard to claim 5 Chen teaches a method as defined in Claim 3, wherein there is an (m)-column inversion applied to an actively driven LCD, (m) being any integer from two to the number of column lines (figure 5).

With regard to claim 6 Chen teaches a method as defined in Claim 3, wherein there is an  $n \times m$ -pixel inversion in an actively driven LCD, where (n) is an integer from two to the number of scan lines and (m) is an integer from two to the number of column lines (figure 5).

With regard to claim 7 Chen teaches a method as defined in Claim 1, wherein said method is applied to one of an actively driven miniature TFT LCD and a reflective liquid crystal on silicon LCD (figure 1a).

With regard to claim 8 Chen teaches a method as defined in Claim 1, wherein there is simultaneous inversion of one of a plurality of columns, rows or pixels of an LCD (figure 4a, 4b, and 4c).

With regard to claim 9 Chen teaches a method as defined in Claim 8, wherein said plurality comprises two (figure 5).

Art Unit: 2675

*Conclusion*

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to: Commissioner of Patents and Trademarks  
Washington, D.C. 20231  
or faxed to: (703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

*Paul Bell*

Paul Bell

Art unit 2675

16 December 2002

*Chanh Nguyen*  
CHANH NGUYEN  
PRIMARY EXAMINER